

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rule 72.2)

To:

SHENYANG PATENT & TRADEMARK AGENCY
ACADEMIA SINICA
24 Sanhao Street
Heping District
Shenyang
Liaoning 110004
CHINE

Date of mailing (<i>day/month/year</i>) 21 July 2005 (21.07.2005)	
Applicant's or agent's file reference IP03007	IMPORTANT NOTIFICATION
International application No. PCT/CN2003/000867	International filing date (<i>day/month/year</i>) 16 October 2003 (16.10.2003)
Applicant INSTITUTE OF METAL RESEARCH CHINESE ACADEMY OF SCIENCES et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, EP, GH, KG, KP, KR, MK, MZ, RO, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Nora Lindner

Facsimile No. +41 22 740 14 35

Facsimile No. +41 22 338 89 65


PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference IP03007		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CN03/00867	International filing date (day/month/year) 16.10 月 2003(16.10.03)	Priority date (day/month/year) 01.11 月 2002(01.11.02)	
International Patent Classification (IPC) or national classification and IPC IPC 7 C25C1/12, C25D1/04, C22F1/08			
Applicant INSTITUTE OF METAL RESEARCH CHINESE ACADEMY OF SCIENCES etc.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 3 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and /or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty ,inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2)with regard to novelty ,inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application.</p>			

Date of submission of the demand 16.October 2003(16.10.03)	Date of completion of this report 10.March 2005(10.03.05)
Name and mailing address of the IPEA/CN 6 Xitucheng Rd., Jimen Bridge, Haidian District, 100088 Beijing, China Facsimile No. 36-10-52019451	Authorized officer  Telephone No.(86-10)62084637

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/CN03/00867

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims	1-4	YES
	Claims		NO
Inventive step (IS)	Claims	1-4	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-4	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Cited documents:

D1: CN1389597A, this document discloses a high-strength and high-conductivity nanometer crystal copper material and its preparation. The material has the abilities as below: density $8.91 \pm 0.03 \text{ g/cm}^3$, purity up to $99.995 \pm 0.003\%$, grain size 5-80 nm, conductivity up to 80-99% LACS, breaking strength up to 200-600 MPa; the preparing method is as follows: 1) use the electrolytic-deposition technique to prepare the three-dimensional block-shaped nano crystal copper material; 2) perform the cold rolling on the above mentioned electrolytic-deposition nano metallic-copper material under the room temperature to prepare the high-strength, high-conductibility, nano crystal copper material. (see page 5 line 8 ~ line 22, page 7 ~ 12, fig. 1 ~ 5, claims 1 and 2.)

D2: CN1337475A, this document discloses a method for producing electrodeposited copper foil and the producing method thereof. An electrodeposited copper foil is produced by: preparing an electrolyte comprising copper, free sulfuric acid, chloride ion, and gelatin additive, then electrodepositing copper foil. The copper foil thus produced containing twins and fine crystals and/or columnar crystal and doped chlorine or chloride ion, this copper foil has excellent elongation and a very high tensile strength. (see page 3 line 1 ~ line 20, page 4 line 5 ~ page 8 line 20, page 9 line 15 ~ page 10, fig. 1 ~ 6, claims 1 ~ 5.)

D3: CN1105398A, this document discloses an electrodeposited Cu foil and the producing method thereof. A controlled, low-profile electrodeposited Cu foil has a uniform, randomly orientated grain structure that is free of columnar grains and twin boundaries and has an average grain size of up to 10 microns. Also claimed is the producing method comprising: flowing an electrolytic solution between an anode and a cathode and applying voltage between the anode and cathode to deposit Cu on the cathode; and removing Cu foil from the cathode, where the electrolyte consists Cu ion, sulphate ions and at least one organic additive or its derivative. (see page 5 line 17 ~ page 8, page 11 line 17 ~ page 13 line 11.)

All the above documents D1 ~ D3 do not disclose the material of claims 1-3, so the subject matters of the claims 1-3 fulfil the requirement of novelty as per Article 33(2) PCT.

All the above documents D1 ~ D3 do not disclose the method of claim 4, so the subject matter of the claims 4 fulfils the requirement of novelty as per Article 33(2) PCT.

Since the material of claims 1-3 are not obvious compared with D1~D3, so the subject matters of the claims 1-3 fulfil the requirement of inventive step as per Article 33(3) PCT.

The method of claim 4 is not obvious compared with D1~D3, so the subject matter of the claim 4 fulfils the requirement of inventive step as per Article 33(3) PCT.

It is apparently that the subject matters of claims 1-4 can be made up or used, they meet the requirement of Article 33(4) PCT.

The method of claim 4 has the industrial applicability, and meet the requirement of Article 33(4) PCT.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/CN03/00867

I. Basis of the report

i. With regard to the elements of the international application:

☒ the international application as originally filed☐ the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the claims:

Nos _____, as originally filed

Nos _____, as amended (together with any statement) under Article 19

Nos _____, filed with the demand

Nos _____, filed with the letter of _____

☐ the drawings:

sheets/fig _____, as originally filed

sheets/fig _____, filed with the demand

sheets/fig _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. with regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages _____☐ the claims Nos. _____☐ the drawings, sheets/fig _____5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.